





travel. When you first ride an F-series Cat you think the suspension is all sag. But when you hit the first mogal section, you understand that Cat engineers have designed this rear FasTrack unit to utilize nearly all the stroke in its shock action. With its gas-charged reservoir shock action and torsion spring control, the suspension goes from soft to medium to stiff action while rarely (if ever) bottoming out.

Wishbone vs. Trailing Arm No one has more familiarity with dou-

ble wishbone front suspensions in sleds than Cat— and it shows. The AWS-6 front end not only absorbs bumps well, but it tracks precisely through the corners, too. Let's give Ski-Doo some credit here as

Let's give Ski-Doo some credit here as well. Its second year with an A-arm front end shows marked improvement over the first season of the REV. Fundamentally, the system is the same as last season. What has changed is the calibration of sheek innards and spring rates. For 2004, the from is very precise. The roll center seems very

and much better controlled

much

than last season's protos.

Polaris, with its 600cc ProX2, has taken

a third approach to the high performance sports class. Right away, you'll notice the trademark Polaris IPS trailing arm front end. Basing the X2 on the ProX chassis. Polaris retains an extruded bulkhead with high shock towers and a crossover support

to maintain torsional rigidity. The taller towers give the front shocks a more upright position for improved action and stroke.

We sensed that the X2's trailing arms transmitted suspension action up to the rider where the links mount on the chassis. We probably wouldn't have commented on it if the other sleds used trailing arms, but the A-arm front ends definitely are smoother to ride in the big whoops.

Polaris' seating position really seems to be a reaction to the Ski-Doo Rev: Move the rider forward. Sit him two-inches tailer. All this on the ProX platform that wasn't conceived to be a rider-forward sled. Looking like a Rev is different than being a Rev

The entire Rev platform is purposed to be a rider-forward platform. Cat's F6 is a package designed to be a hunker-in. low engine placement go-fast machine. Polaris' X2 is a

repositioned short coupled ProX that's trying to be a next generation Rev. It iso't.



Ski-Doo's 600ce high output twin showed just over 117 horses in last year's Shoot-Out Polaris' Liberty twin ran our dyno up to 110 hp last year, but the year before rang up 116.4 hp on the same dyno. Bottom line: all

> hree are good runners, but based on the F7's incredible engine strength. we'll be betting on its F6 sibling to

have a similar her-

Under The Hood

Riding positions and styling aside, these three sleds go about creating performance in interesting ways. Cat created an all new 600cc engine. Ski-Doo adds a semi-direct injection 600cc to the mix. Polaris returns its stout Made in the USA Liberty twin.

On paper, the Cat claims 118 hp for the



The new seat moves the X2 rider forward and taller. Its similar but not the same as Shidees Rev

Specifications	MX Z Rev X 600	Firecat F6	ProX2 600
	Fakes twin, liquid cooled two stroke DPM 504cc	Suzuki twin, liquid cooled two stroke, EFI, TPS, 599cc	Liberty twin, liq- uid cooled, digital CDI w/TPS, 599co
	Stock Timed	APV w/ tuned pipe & canister	VES, Single pipe
	Or.	437	42.5"
	A.S 40-10 III	AWS-VI PasTrack	ProX IFS Pro X
	12,7151,XF0.	13.5"x128"x1.0"	15"x121"x1.25"
0.00	104	12.6	11.8
	464 fbs.	460 lbs.	477 lbs.
	\$6,849.00	\$9,499	S8.349

itage and power. You can get the non-SnoPro F6 Cat with the battery-less electronic fuel injection instead of the SnoPro's twin 40mm flatslides. For everyday-all-conditions riding, we'd opt for the EFI setup as Cat has this system down to a sweet science. Easy starting. The EFI accounts for barometer ups and downs, temperature changes, etc.

With the Ski-Doo 600 MXZ, we'd go with the SDI (semi-direct injection) for the same reasons. Based on our personal experiences with a Sea-Doo direct injection watercraft, we recommend the system because you get better fuel mileage, cleaner combustion and much more consistent throttle response. Fuel economy should be a reason to pop for the SDI as the carbu-



in the Rev chassis, the SC-10 III suspension delivers o consistent ride unlike any other.



Cat's new F Series is an excellent evalution of the "traditional" sled

retted HO we rode last season definitely liked its petrol products.

Polaris' Liberty twin sticks with twin 38mm flutslide carbs, but comes with the expected digital electronic ignition and innovative fuel octane switch, which retards the ignition in case you encounter poor quality fuel. As with Ski-Doo's Rotax twin, the Polaris Liberty twin comes with an electronic reverse

The Polaris features its own P85 drive clutch, but has worked with Team Industries to provide a higher performance secondary driven unit. Using snocross experience, the Polaris drivetrain is designed to gain a holeshot advantage. Based on last year's American Snowmobiler Shoot-Out, this system proved quickest in the 600 class in accelerating from 0-60 feet. That was with a sled giving away upwards of 7 hp to its closest competitor!

Arctic Cat uses a Cat design of rpmsensing drive and roller cam secondary. Ski-Doo relies on its TRA-III drive and driven. As last year's grass drag results showed, the Rev gets out of the hole well.

The Bottom Line

The Rev from Ski-Doo is an exceptional snowmobile. This second year version has improved dramatically from the inaugural season. The chassis layout is extremely comfortable and this nonsense about "getting used to it" is just thatnonsense, Whether you've been riding one season or 30 seasons, you won't have any problems. In fact, we'd bet that long term veterans may actually like this setup better than what they rode before. Because you sit in the "rocking chair" section of the suspensions and because you can involve your legs and thighs in the bump absorption and because you don't have to stress your arms by pulling yourself forward for bumps ... well, you get the idea. The Rev is easy to ride, saves wear and tear on your body and lets you put on easier miles in a

taken kaling an ing talah di anggapan ng dilaken kaling kaling kanggapan kaling bilang a sa sa sa sa sa sa sa day than the "legs out, butt back" seating that tradition dictated.

From a performance standpoint, all three are in the same league. They are all capable of handling virtually any trail condition. We think the Ski-Doo Rev will handle them better overall, but the Cat is definitely the best of the "conventional" position sleds. To us, the Polaris is merely a stop gap measure to a totally new generation of Polaris snowmobiles. The Polaris X2 series is designed to give loyal fans a Rev-like sled based on XC components. For loyal Polaris fans, that may be enough At least Polaris hopes so, because Ski-Doo's market share gains have come mostly from Polaris. Cat fans have good reasons to stay

loyal. The F6 series is very strong under

the hood. The suspensions are supple and nimble. Quality was an issue with the F7 last season, but we'll be very surprised if the F6 suffers that same fate. So, bottom line: Cat is a very good bet.

All three models have the expected key ergonomic features like heated handlebars and thumbwarmers. We found wind protection superior on the Cat and of negligible value on the Rev and X2. You get gascharged shocks and above average suspensions in all three. Polaris offers exclusive Walker Evans remote reservoir compression-adjustable shocks - front and rear But, it's not enough to lift the Polaris above third choice in our estimation. We like the REV first, but could live comfortably with the new F6 as the best of the traditional chassis models. 45

YAMAHA SXViper S



Making a good sled better!

Then we looked at the best category of sleds for your dollar, we concentrated on the 600cc sports sleds. While the 2004 Yamaha SX Viper S has 100cc more than the Rev, F6 and 600 Pro X2, its horsepower characteristics are right in line with those three models. At just under 120 horsepower, the Viper S should share a very similar power-to-weight ratio with the best 600 sportsters, as it is a bit heavier thanks to its triple cylinder engine versus twins found in the other three sleds.

The Viper S is one of two Yamaha sleds that fall into snowmobiling "limbo" this season. Foremost is the "S" Viper, but the all-new 600cc three-cylinder Venom shares a similar fate. Yamaha doesn't have a full-blown "power" 600 like the other guys, but has these two Viper-based sleds falling on either side of them from a performance standpoint.

The 700cc triple cylinder Viper S crosses into two areas: 600cc sports performance and 700cc trail sports. We unapologetically state that we have always enjoyed the Viper. Yes, the first year production models came with stiffer suspensions than we were led to believe. but Yamaha has settled that point.

For the guy who wants a softer suspension setting and more trail comfort, there's the Viper ER with key start and reverse gear. The sports-minded will take to the "S" version. Sporty handling comes directly from the use of premium quality Ohlins shock absorbers up-front. The Ohlins add consistency to the suspension action and multiple "clicker" adjustability to compression damping

A new variable rate shock in the ProAction rear suspension makes a noticeable difference for 2004. There's also a special "Rip Saw" pattern Camoplast-built track for aggressive bite when you rip open the three 33mm flat slide carbs on this 696cc triple.

For 2004, the SX Viper S is an excellent alternative to twin cylinder 600cc sports sleds. The sound alone of this sweetheart triple may be enough to seal the deal. This Yamaha has attitude and handling to back it up!- AS Norman Emailer, AmSnow Online Test Editor